

Panhandle Health District

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Immunize to Protect the Community from Disease

By Cynthia Taggart
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Vigilant parents do their best to ensure long, productive and happy lives for their children by feeding them well and teaching them about basic safety—wearing seat belts and bike helmets, looking before crossing streets, not speaking to strangers.

These parents call the doctor when their children seem sick or hurt and transform their homes into safety zones where children won't crack their heads on counter corners or stick their fingers into electrical sockets.

So it's strange that in Idaho many of these safety conscious parents don't immunize their children to protect them from diseases that could debilitate them for life and even kill them.

"From the 1800s to the 1900s, 50 percent of all children died. We don't worry about that happening anymore," says Randi Lustig, manager of Panhandle Health District's Disease Prevention program. "What made the difference? Vaccines and sanitation."

Idaho's immunization rates for children ages 19 months to 35 months old are the third lowest in the nation, according to results from the 2007 National Immunization Survey. The national average for children in this age group with all the recommended immunizations is 77.4 percent. Idaho's average is 65.6 percent.

The average in the five northern counties within the Panhandle Health District (PHD) is higher than the state's but far from PHD's goal of more than 90 percent.

"I want to do better," says Mareva Kammeyer, PHD's nurse coordinator of the immunization program. "Our rates are climbing slowly, so we're heading in the right direction."

For parents of Baby Boomers, vaccines were a miracle. For the most part, they were new and promised disease protection that was unavailable to earlier generations. As Baby Boomers grew up, common diseases with potentially deadly results such as diphtheria, polio and measles, quit spreading through the United States, thanks to vaccines.

Appreciation for the accomplishment of vaccines stayed fresh through the Baby Boom generation. By the next generation, however, vaccines had erased many formerly common childhood diseases from the general population's consciousness and immunizations faced a marketing problem. Why immunize against measles, mumps and rubella when they're no longer a problem in the United States?

The Centers for Disease Control and Prevention lobbied hard on behalf of vaccines. Diseases no longer common in the United States were still prevalent in other parts of the world. Because the diseases are contagious, international travel keeps them a potential threat. Vaccines provide protection.

Without the specter of the iron lung or leg braces in their memories, parents began to weigh the pain of a shot for their babies against the risk of disease. A small fraction of children reacted to various vaccines, which caused some parents to question if immunizations carried more health risks than benefits.

"With no tragedies to focus on, attention shifted to babies crying when they're poked," Lustig says. "No one wants their baby poked, but it's better than an iron lung."

A small percentage of people are allergic to one or more vaccines. People with healthy immune systems respond better to vaccines, so anyone with a compromised immune system, such as cancer patients, should talk to a health care provider before being immunized.

Children with allergies and compromised immune systems, though, are the exception and sacrifice long-term protection from vaccine-preventable diseases in order to hold on to a diminished level of daily health. Healthy children without immunizations risk catching vaccine-preventable diseases themselves and spreading the diseases to children unimmunized because of health problems.

The science of vaccines was learned from observing the human immune system. Humans live in a sea of micro-organisms, many of which can cause disease. When people become infected with a disease-causing antigen, their immune system works to ensure recovery. It also prevents the same antigen from causing the disease to return by creating “memory cells” specific to the disease.

Vaccines follow the same idea, stimulating the immune system to create memory cells but without causing people to suffer from the disease. Vaccines are made from small particles of purified bacteria or virus in a mix designed to trigger the immune system.

The concept of inoculating healthy people with an antigen to induce immunity dates back some 3,000 years to China.

Multiple vaccines in one visit are not dangerous, Lustig says.

“If children are going to have a reaction, they’ll have it whether they have one vaccine or 7,” she says. “It’s better to get all seven done at once rather than make them come back to get poked over and over again.”

When children react with a mild fever after a vaccination, it’s a sign their immune systems are responding as they should. Fewer than one in a million children suffer from severe reactions. Exhaustive scientific research has shown no link between vaccines and autism.

Vaccines are rigorously tested on a continual basis. The Vaccine Adverse Events Reporting System (VAERS) was created in 1990 to keep track of symptoms possibly caused by vaccines. Anyone can report to VAERS and all reports are investigated.

Vaccines for Children, a federal program, provides vaccines to Idaho. Families pay only the associated costs, such as for storage, equipment and the nurses to give the immunization. At PHD, that cost is \$14 per visit. All children up to age 19 can participate in the Vaccines for Children program.

The rarity of Hepatitis A outbreaks now is an example of how effective vaccines are.

“We haven’t had long lines for Hepatitis A exposure for about 10 years, since we began vaccinating for Hepatitis A,” Lustig says. “We’ve somewhat achieved a herd-like immunity. That’s what immunizations do for us.”

For a PHD appointment for immunizations, call 245-4556. For more information on immunizations, visit www.vaccinateyourbaby.org or www.cdc.gov.